Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A data storage system, comprising:

a plurality of read/write heads;

a plurality of data channels, a subset of said plurality of data channels coupled to a read/write head of said plurality of read/write heads; ~~and~~

a storage medium, said storage medium including a plurality of storage bands, wherein each read/write head of said plurality of read/write heads is aligned to read or write data from or to a corresponding storage band of said plurality of storage bands, and access at least said subset of said plurality of data channels; and

a position control unit, said position control unit operable to align at least one read/write head of said plurality of read/write heads with said corresponding storage band of said plurality of storage bands with a single positioning mode of operation.

2. (Original) The data storage system of claim 1, wherein said data storage system comprises a magnetic tape drive.

3. (Currently Amended) The data storage system of claim 1, wherein said plurality of read/write heads comprises at least one read/write head of a read/write configuration and at least one read/write head of a write/read configuration.

4. (Currently Amended) The data storage system of claim 1, wherein said plurality of read/write heads comprises at least one read/write head of a read/write/read configuration and at least one read/write head of a write/read/write configuration.

5. (Original) The data storage system of claim 1, wherein at least one read/write head of said plurality of read/write heads includes a read/write element and a write/read element.

6. (Original) The data storage system of claim 1, wherein a number of said plurality of read/write heads is equal to a number of said plurality of storage bands.

7. (Original) The data storage system of claim 1, wherein a relationship between said subset of data channels and said plurality of read/write heads is defined as M/N, whereby M/N comprises a number of data channels per read/write head.

8. (Original) The data storage system of claim 1, wherein a relationship between said subset of data channels, said plurality of read/write heads, and said plurality of storage bands is defined as M/N, whereby M comprises a total number of data channels, and N comprises at least one of a total number of said plurality of read/write heads and a total number of said plurality of storage bands.

9. (Cancelled).

10. (Currently amended) A read/write head assembly, comprising:

a plurality of read/write heads, each read/write head of said plurality of read/write heads operable to read or write data from or to a corresponding storage band of a plurality of storage bands arranged on a storage medium; and

a plurality of data channels, a subset of said plurality of data channels coupled to a read/write head of said plurality of read/write heads; and

a position control unit, said position control unit operable to align at least one read/write head of said plurality of read/write heads with said corresponding storage band of said plurality of storage bands with a single positioning mode of operation.

11. (Original) The read/write head assembly of claim 10, wherein said storage medium comprises a magnetic tape.

12. (Currently Amended) The read/write head assembly of claim 10, wherein said plurality of read/write heads comprises at least one read/write head of a

read/write configuration and at least one read/write head of a write/read configuration.

13. (Currently Amended) The read/write head assembly of claim 10, wherein said plurality of read/write heads comprises at least one read/write head of a read/write/read configuration and at least one read/write head of a write/read/write configuration.

14. (Original) The read/write head assembly of claim 10, wherein at least one read/write head of said plurality of read/write heads includes a read/write element and a write/read element.

15. (Original) The read/write head assembly of claim 10, wherein said subset of said plurality of data channels comprises a read channel and a write channel.

16. (Original) The read/write head assembly of claim 10, wherein a number of said plurality of read/write heads is equal to a number of said plurality of storage bands.

17. (Original) The read/write head assembly of claim 10, wherein a relationship between said subset of data channels and said plurality of read/write heads is defined as M/N, whereby M/N comprises a number of data channels per read/write head.

18. (Original) The read/write head assembly of claim 10, wherein a relationship between said subset of data channels, said plurality of read/write heads, and said plurality of storage bands is defined as M/N, whereby M comprises a total number of data channels, and N comprises at least one of a total number of said plurality of read/write heads and a total number of said plurality of storage bands.

19. (Currently Amended) The read/write head assembly of claim 10, ~~further comprising:~~ wherein the position control unit comprises:

an actuation unit, said actuation unit operable to align at least one read/write

head of said plurality of read/write heads with said corresponding storage band of said plurality of storage bands with a fine positioning operation.

20. (Withdrawn) A method for reading and writing data from and to a storage medium, comprising the steps of:

arranging a plurality of storage bands on said storage medium;

arranging a plurality of read/write heads in proximity to said plurality of storage bands; coupling a subset of a plurality of data channels to at least one read/write head of said plurality of read/write heads;

aligning said at least one read/write head of said plurality of read/write heads with at least one of said plurality of storage bands; and

said at least one read/write head accessing said subset of said plurality of data channels and reading and writing said data from and to said storage medium.